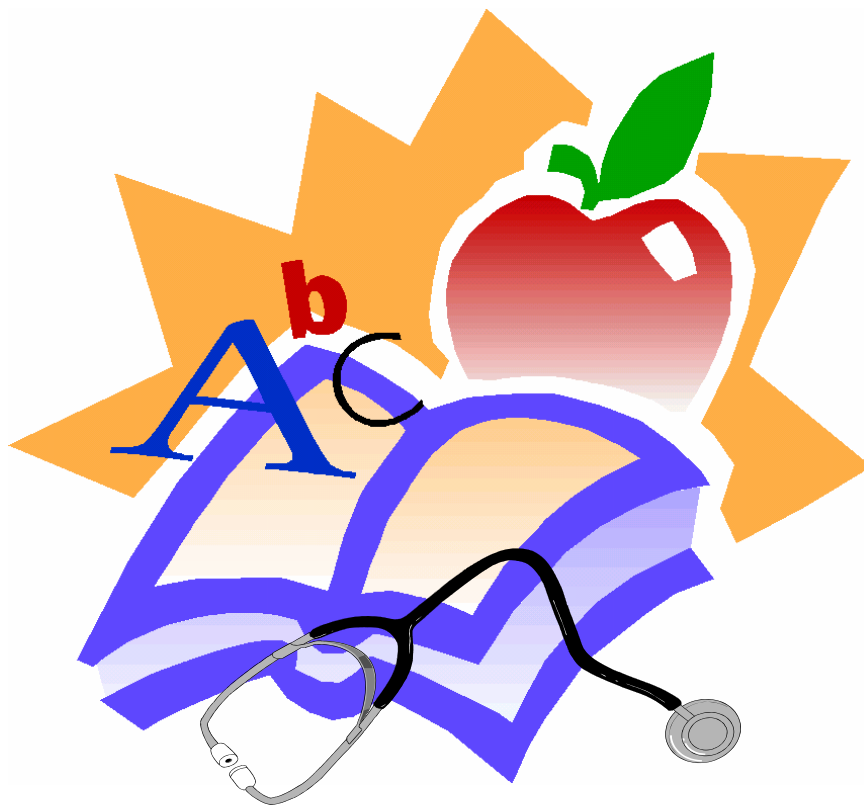


# North Carolina Annual School Health Services Report For Public Schools

## Summary Report of School Nursing Services School Year 2004-05



**North Carolina**  
Department of Health and Human Services  
Division of Public Health  
Women's and Children's Health Section



State of North Carolina • Michael F. Easley, Governor  
Department of Health and Human Services  
Carmen Hooker Odom, Secretary  
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Leah Devlin, DDS, MPH, State Health Director  
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10/05

# NORTH CAROLINA ANNUAL SCHOOL HEALTH SERVICES REPORT FOR PUBLIC SCHOOLS

**SCHOOL YEAR:**

**2004-05**

This report includes data submitted by school nurses, based on their knowledge of health services provided by school nurses and other health professionals in their schools from North Carolina Public Schools only. It does not include data from state residential, private, charter or federal schools.

## **SURVEY POPULATION:**

Number of LEAs (Local Education Agencies) in North Carolina: 115 (100%)

Number of LEAs responding to survey: 115 (100%)

Number of public school students in North Carolina: 1,332,009 (100%)

Number of public school students represented in survey: 1,332,009 (100%)

Number of School Nurse Positions: 929

Number of School Nurses<sup>1</sup>: 903 (100%)

(Numbers represent nurses in all 115 LEAs)

Number of Full Time Equivalencies (FTEs<sup>2</sup>): 836.06

## **Student Population, School Nurse Staffing, and Nurse to Student Ratios**

Number of:	SY 2000-01	SY 2001-02	SY 2002-03	SY 2003-04	SY 2004-05
LEAs	117	117	117	117	115
Schools	2,135	2,139	2,171	2,186	2,182
Students	1,243,442	1,271,995	1,279,468	1,311,163	1,332,009
School Nurses	679	716	737	768	903
School Nurse FTEs	599.22	621.42	667.24	691.11	836.06
Average NC School Nurse/Student Ratio	1:2075	1:2047	1:1918	1:1897	1: 1593

### **School nurse/student ratios:**

School nurses are registered nurses (RNs). The national standard for the school nurse to student ratio is 1:750 for general student population, 1:250 for students with special health needs, and 1:125 for students with severe and profound disabilities. Although there were 903 school nurses during the 04-05 school year, some were employed only part-time. For this report, school nurse to student ratios were based on **full-time equivalencies (FTEs<sup>2</sup>)** of nurses working in LEAs. There were 929 school nurse positions during the 04-05 school year, 26 of which remained vacant during the year. For a breakdown of nurse to student ratio, see Appendix C, page 13.

<sup>1</sup> This number includes nurses employed in part-time and full-time positions

<sup>2</sup> FTE = Full Time Equivalency (37.5 or more hours/week)

The school nurse to student ratio varies widely across the state. The ratios during the 04-05 school year ranged from 1: 473 in Graham County to 1: 4778 in Winston-Salem Forsyth.

In recognition of the enormous health needs of school age children and the linkages between health and academic success, the North Carolina General Assembly included funds for a School Nurse Funding Initiative in its 2004 ratified budget. The funds provided 65 time-limited school nurse positions over a two-year period and 80 permanent school nurse positions. The budget stated that DHHS/DPH and DPI “shall provide funds to communities to hire school nurses” and that criteria for the awarding of funds should include determining areas of greatest need and greatest inability to pay for school nurses. The budget specified that the following would be part of the criteria:

- current nurse-to-student ratio;
- economic status of the community; and
- health needs of area children.

Positions allocated according to the criteria developed by DHHS/DPH and DPI helped increase the number of LEAs meeting the recommended ratio of one nurse to 750 students from 10 in the 03-04 school year to 21 for 04-05. Though all LEAs were able to provide school nursing services during the 04-05 school year, a few school systems provided services for only a portion of their students (i.e., elementary/middle and/or students in exceptional children's programs). Twenty-eight (23.24 FTE) of the 903 school nurses serve only students in the exceptional children's program and two nurses serve Pre-K exceptional children only. Overall, 99% of students in NC Public schools had nursing services in their schools.

### **Employers of School Nurses**

School nurses in North Carolina are employed by a variety of agencies. The major employers are local education agencies (LEAs), county and district health departments, and hospital affiliated health care systems.

#### **Number and Percent of Nurses Employed by Type of Agency (N=903)**

Local Education Agency (LEA)	455	(50%)
Health Department	312	(35%)
Hospital Health Care System	35	( 4%)
Alliances or combinations of above	101	( 11%)

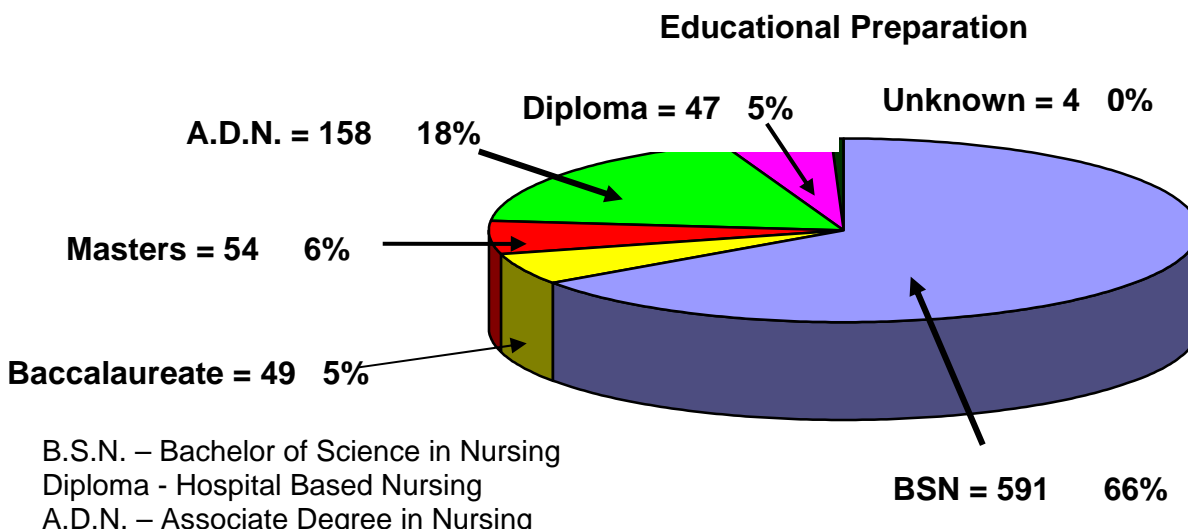
### **Funding for School Nurses**

Funding for school nurse positions comes from a variety of sources including local tax revenues, state and federal funding through LEAs and local health departments, federal block grant and categorical funds, and public and private foundations.

### **Educational Preparation of School Nurses**

The demand for school nursing services has grown rapidly in recent years. Nursing personnel who work on a day-to-day basis with school children must have the expertise required to meet increasingly complex health needs. The American Academy of

Pediatrics supports the goal of professional preparation for school nurses. Qualifications for the professional school nurse include licensure as a registered nurse and a baccalaureate degree.<sup>3</sup> Seventy-seven percent (77%) of the school nurses in North Carolina have a baccalaureate or higher degree.



### National School Nurse Certification

The Department of Public Instruction requires that all school nurses hired by LEAs after July 1, 1998, hold national school nurse certification from either the American Nurses Credentialing Center (ANCC) or the National Association of School Nurses (NASN). Non-certified nurses hired after this date have three years from the date of employment to become certified. Currently, 344 (38%) of the 903 nurses hold national school nurse certification. Of these, 302 are certified by NASN; 42 by ANA. During the 04-05 school year, 338 (37%) of the school nurses were within their first three years of being hired.

#### Certified:

1996-97: 17%	1999-00: 29%	2002-03: 39%
1997-98: 20%	2000-01: 34%	2003-04: 40%
1998-99: 25%	2001-02: 38%	2004-05: 38%

**NOTE:** Not all respondents completed all portions of the remainder of the survey. Some LEAs do not provide these services or collect data regarding services in a portion of these areas.

### HEALTH COUNSELING:

Students contact the school nurse for answers to questions ranging from normal growth and development to serious emotional and mental health concerns requiring referrals to

<sup>3</sup> American Academy of Pediatrics: Policy Statement "Qualifications and Utilization of Nursing Personnel Delivering Health Services in Schools (RE7089)."

mental health professionals. As the table below illustrates, **school nurses provided more than 47,000 individual health-counseling sessions.**

#### **Individual Health Counseling Sessions**

<b>Health Counseling Issues</b>	<b>Elem</b>	<b>MI</b>	<b>HS</b>	<b>Total</b>
Child Abuse & Neglect	1815	615	511	2941
Grief & Loss	1141	1574	875	3590
Pregnancy Related	15	1174	4760	5949
Puberty/Hygiene/"growing up"	10587	5212	7985	23784
Substance Abuse	86	596	1084	1766
Suicide/Depression	658	945	1859	3462
Tobacco Use	219	947	1403	2569
Violence & Bullying	1376	1026	626	3028
<b>Total</b>	<b>15897</b>	<b>12089</b>	<b>19103</b>	<b>47089</b>

Of particular importance were reports from school nurses regarding pregnancies, suicide attempts and deaths, and homicides. School nurses reported an increase in the number of known pregnancies from 3,131 in 03-04 to 3,406 in 04-05. **Known Pregnancies = 3406** (Elementary = 7; Middle School = 313; High School = 3,086). Seventy percent stayed in school during the pregnancy. The table below shows the exceptions.

#### **Status of School Enrollment for Students Known to be Pregnant: School Year 2004-05**

	<b>Elementary</b>	<b>Middle School</b>	<b>High School</b>	<b>Total</b>
Students receiving homebound instruction	<b>0</b>	<b>104</b>	<b>923</b>	<b>1027</b>
Students dropping out permanently	<b>6</b>	<b>32</b>	<b>391</b>	<b>429</b>

There was a decrease in number of deaths by suicide and suicide attempts from SY 03-04 to SY 04-05. In 03-04 there were 31 deaths from suicide as compared to 23 in 04-05. Likewise, the number of known suicide attempts decreased from 474 in 03-04 to 401 in 04-05.

#### **Death by Suicide/Homicide: School Year 2004-05**

	<b>Elementary</b>	<b>Middle School</b>	<b>High School</b>	<b>Total</b>
Deaths from suicide	<b>1</b>	<b>2</b>	<b>20</b>	<b>23</b>
Suicides occurring at school	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
Death from homicide	<b>3</b>	<b>5</b>	<b>15</b>	<b>23</b>
Homicides occurring at school	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

#### **Known Suicide Attempts: School Year 2004-05**

	<b>Elementary</b>	<b>Middle School</b>	<b>High School</b>	<b>Total</b>
<b>Known Suicide Attempts</b>	<b>38</b>	<b>151</b>	<b>212</b>	<b>401</b>

Parents also depend on school nurses for health guidance. During the 04-05 school year, nurses evaluated at school over **106,450 student injuries and acute illnesses that had originated at home**. Nurses assist families by locating medical and dental resources and referring students to these providers for the diagnosis and treatment of a wide variety of health problems.

## HEALTH TEACHING:

School nurses were involved in a variety of health teaching and instructional sessions including one-on-one, small groups, and classroom presentations. Classroom instruction included such topics as hygiene, first aid, wellness and fitness promotion, *Open Airways* and other asthma management programs, AIDS peer education, smoking prevention and cessation, violence prevention, puberty, prenatal and parenting programs. Faculty and staff training included medication administration, infection control, OSHA Bloodborne pathogen regulations, CPR, first aid, and chronic disease management, including general and intensive training for the care of students with diabetes. The nurses also conducted health fairs and made presentations to PTOs and other community groups. All in all, the nurses reported providing **24,273 programs and presentations** during the 04-05 school year.

## CHRONIC HEALTH CONDITIONS:

An increasing number of students with chronic health conditions attend school. Since these conditions can affect attendance, school performance, and the student's level of well being, school nurses work closely with students, their families, health providers, and school staff to reduce the negative impact of illness on learning. Nurses serve as case managers, evaluate activities of daily living, and develop appropriate modifications for the learning environment. The number and percent of students with reported chronic health conditions are illustrated in the table below.

**Number and Percent of Students with Chronic Health Conditions**

School Year	Number and Percent
96-97	62,220 (5%)
97-98	78,387 (6%)
98-99	95,035 (8%)
99-00	114,765 (9%)
00-01	131,589 (11%)
01-02	129,329 (10%)
02-03	121,877 (10%)
03-04	161,559 (12%)
04-05	197,052 (15%)

**Asthma**, a major chronic illness among school age children, is the leading cause of school absenteeism.

Nurses from 115 LEAs reported:

- **77,276** students have asthma,
- **58** LEAs have asthma education programs,
- **2,467** students were taught the "Open Airways" curriculum, and
- **3,802** students use peak flow monitoring while at school.

Diabetes legislation, effective July 1, 2003, reflects concern for the **3,858** students with diabetes as reported by nurses in 115 LEAs.

- **3,151** monitor blood glucose at school
- **1,654** receive insulin injections at school
- **1,216** have insulin pumps

### Private Duty Nurses/One-on-One Health Care Attendants

Some medically fragile students require one-on-one nursing care during the school day. Some LEAs contract private duty nurses for specific health conditions and procedures. Thirty-two (32) LEAs reported contracting “private duty nurses/health care attendants.” These attendants consisted of 40 RNs, 36 LPNs, and 2 Health Aides.

Because school nurses are not present full-time in the majority of North Carolina’s schools, the number of students with chronic conditions is likely to be under reported.

*For a more extensive list of the types of chronic health conditions that were managed at school, see Appendix A, page 11.*

### HEALTH CARE PROCEDURES AT SCHOOL:

Some students with chronic illness, physical handicaps and/or disabilities require invasive health care procedures to be performed during the school day. The nurses reported that at least **16,373 students** needed one or more of the following invasive procedures: urinary catheterizations, suctioning, tracheostomy care, nasogastric or gastrostomy tube feedings, stoma care, blood glucose monitoring, oxygen therapy, and nebulizer treatments. The following list illustrates the diversity of some of the more commonly performed procedures at school.

#### Number of Students Requiring Health Care Procedures

Use of Epi-pens	5,168	Shunt Care	147
Nebulizer Treatments	1,661	Stoma Care	189
Glucagon Injection	1,634	Suctioning	111
Tube Feeding	477	Tracheostomy Care	77
Urinary Catheterizations	298	Central Venous Line	72

### Do Not Resuscitate (DNR)

Some students who attend school have terminal health conditions. There are times when parents and medical providers have determined that no life saving measures are to be initiated at school. In these situations, a DNR order is prepared for the school. In 04-05, there were at least seventeen (17) such students.

### MEDICATIONS AT SCHOOL:

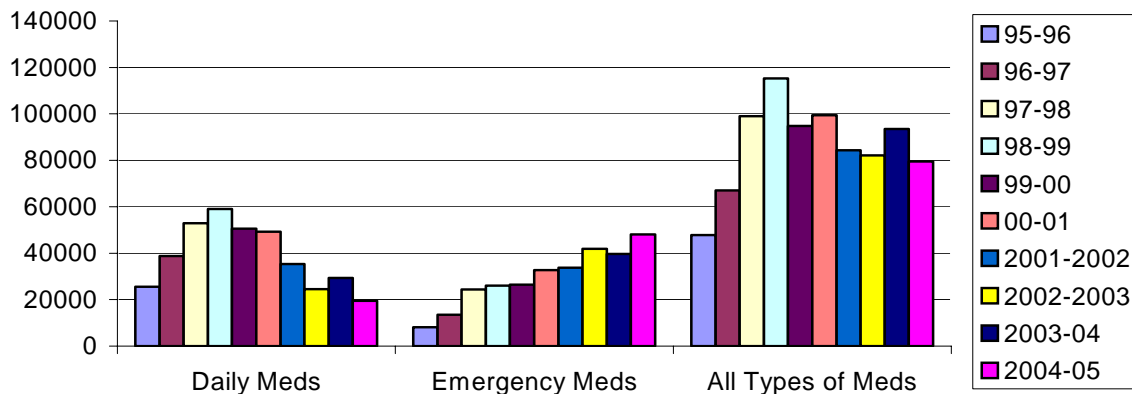
During the 04-05 school year, nurses from 115 LEAs reported that **79,482 students received medication while at school**. Some received medication daily on a long term basis (19,541), others on short term (11,836) or emergency basis (48,105). Medications received most frequently on a daily basis include: Ritalin, Dexedrine, Lithium, and other psychotropic, controlled substances. Emergency drugs include rescue asthma inhalers, Glucagon, Diastat, and epinephrine injections. The table below provides a ten-year overview of the numbers and percent of students receiving medications as reported by school nurses.



### Number and Percent of Students Receiving Medications Administered at School

School Year	# Students	Daily Medications	All Types of Medications
95-96	1,151,196	25,593 (2%)	47,836 (4%)
96-97	1,183,335	38,780 (3%)	67,073 (6%)
97-98	1,215,556	52,887 (4%)	98,961 (8%)
98-99	1,226,748	59,048 (5%)	115,200 (9%)
99-00	1,237,794	50,554 (4%)	94,812 (8%)
00-01	1,243,442	49,303 (4%)	99,411 (8%)
01-02	1,271,995	35,319 (3%)	84,396 (7%)
02-03	1,279,468	24,477 (2%)	82,147 (6%)
03-04	1,311,163	29,321 (2%)	93,561 (7%)
04-05	1,332,009	19,541 (2%)	79,482 (6%)

### Number of Students Receiving Daily/Emergency/All types of Medications at School



### ADMINISTRATION OF MEDICATIONS:

**Secretaries, counselors, classroom teachers and teacher assistants** are the primary persons who administer medications on a daily basis in the majority of school systems. Administration of medications to students by school staff is a serious responsibility. To ensure that school staff performs this task with safety and accuracy, it is essential that a school nurse be available to review and participate in the development of school policy and procedures; train and supervise teachers and other staff about all aspects of giving medications correctly; and serve as coordinator between parents, medical providers, and the school.

- School nurses in **96%** of the LEAs **provided formal training programs** for school employees who were designated to administer medications and **conducted audits** of medication records.

### HEALTH CARE COORDINATION:

The school nurse's role often extends beyond the school setting. Nurses serve as liaisons with physicians, dentists, community agencies, and families while supporting

and caring for the health needs of students. More than **7,950 home visits** were conducted during the 04-05 school year to assist families with student health issues.

### **HEALTH POLICIES:**

Policies are essential to guide the development and implementation of coordinated school health programs. School nurses from 115 reporting LEAs cited the presence of written, school board approved policies in the following key areas:

Medication Administration	97%
Prevention/Control of Communicable Disease	91%
Injury Reporting	67%
Maintenance of School Health Records	63%
Provision of Emergency Care	70%
Special Health Care Services <sup>4</sup>	70%
Transportation (non-school bus)	48%
Health Screenings	43%
Health Care Referral and Follow-up	40%
Health Problem Identification	26%

### **PRE-KINDERGARTEN (PRE-K) PROGRAMS:**

Increasing numbers of Pre-K students are enrolling in North Carolina's public schools. Ages of Pre-K students were: **5 year olds (3,154), 4 year olds (16,318), 3 year olds (2,645), and 2 year olds (27)**. Most students in these programs are developmentally delayed, have disabilities, and/or have special health care needs. School nurses serve these students in addition to those in grades K-12 .

**[Note that Pre-K membership numbers are not contained within the reported average daily membership of the LEAs nor included in the school nurse to student ratio lists.]**

### **STUDENT TOBACCO USE:**

Schools communicate tobacco-free messages to young people through school policies, health education programs, and the day-to-day interactions between staff and students. As of July 2005, 59 LEAs (51%) have adopted a 100% tobacco free<sup>5</sup> policy. This is an increase of 20% since the 03-04 NC Annual School Health Services Report. Additionally, 37 more LEAs and their communities are working to advance a 100% tobacco free policy.

#### **School nurses reporting from 115 LEAs stated:**

- **51** (44%) offered alternatives to suspension programs
- **57** (50%) offered smoking cessation classes.

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<sup>4</sup> Special Health Care Services, NC State Board Policy #04A107 which states that "each LEA shall make available a registered nurse for assessment, care planning, and on-going evaluation of students with special health care service needs in the school setting."

<sup>5</sup> School policy totally prohibits tobacco use for all students, staff, and visitors in the school buildings and extends to the entire campus, vehicles, and all school events including outdoor events. The policy extends to hours after regular classroom schedules, 24 hours a day, seven days a week and includes off-campus school sponsored student events.

## EMERGENCY CARE:

Injuries and illnesses are common occurrences in the school-aged population. Many minor incidents occur to students and staff during the course of the school day. School nurses reported approximately **555,811 minor injuries** occurring at school during 04-05. More importantly, **10,334 serious injuries** were reported. Serious injuries are defined as medical emergencies requiring an Emergency Medical Service (EMS) call or immediate medical care plus the loss of one-half day or more of school. Of the serious injuries reported, most (33%) occurred on the playground. Another 25% occurred in P.E. classes and 27% occurred in the classroom. *For a complete breakdown of type and place of injury, refer to Appendix B page 12.* There were adverse outcomes for some of the students with serious injuries that occurred at school. For instance, 1057 of the injuries involved law enforcement intervention, 20 students were permanently disabled, while 5 died.

Only 40% of the LEAs have school nurses available on campus most of the time when students and staff injuries occur. Therefore, school nurses must assure that school personnel are trained to provide first aid in emergencies. **Sixty-one percent** of the LEAs reported having designated and trained school personnel as **First Responders**.

## HEALTH SCREENING, REFERRAL AND FOLLOW-UP:

Mass screenings or grade-wide screenings are often conducted with the **assistance** of trained volunteers or other health professionals (example: audiologists, dental hygienists, and speech/language pathologists). Though the school nurse provides follow-up for most students referred through dental screenings, accurate dental screening numbers from all providers were unavailable and are not reflected in this report. The following table shows the results of mass screening projects that were conducted during the 04-05 school year. With the exception of pediculosis, significant numbers of students did not complete care by seeking or receiving medical or dental diagnosis and/or treatment. This reflects the need for additional staff to provide appropriate follow-up and care management services for students.

SCREENING	TOTAL	REFERRED	COMPLETED REFERRAL	% COMPLETED <sup>6</sup>
Blood Pressure	52,154	1,632 (3%)	1,192	73%
Dental	107,796	17,561(16%)	10,571	60%
Hearing	112,133	5,825 (5%)	3,412	59%
Pediculosis	409,092	12,326 (3%)	12,272	100%
Spinal	3,808	120 (3%)	76	63%
Vision	418,641	34,774 (8%)	24,458	70%
Other <sup>7</sup>	72,296	4,207 (6%)	2160	51%

<sup>6</sup> Percentage which secured diagnosis and/or treatment

<sup>7</sup> Examples include communicable and infectious diseases, BMI, ADHD, depression, and staff health screenings

## **COMMUNITY INVOLVEMENT IN SCHOOL HEALTH SERVICES:**

Community involvement contributes to the quality and effectiveness of school health programs and services. Nurses encourage and promote community involvement through:

- establishment of school health advisory councils,
- development of inter-agency planning and written agreements,
- recruitment of local physician advisors, and
- development of PTO health subcommittees.

Of the 115 LEAs reporting:

- 115 (100%) have **School Health Advisory Councils**.
- 78 (68%) have **physician advisors** for their school health programs. Most are family practice physicians (35) or pediatricians (38).

### **DATA SOURCE:**

NC Annual School Health Nursing Survey: Summary Report of School Nursing Services 2004-05

NC Division of Public Health • Department of Health and Human Services

And

Public Schools of North Carolina • Department of Public Instruction

**APPENDIX A: CHRONIC HEALTH CONDITIONS  
SCHOOL YEAR 04-05**

Health Conditions (EL = elementary; MI = Middle School; HI = High School) Some nurses reported only totals with grade level not specified.					
<b>Condition</b>	<b>EL</b>	<b>MI</b>	<b>HS</b>	<b>Grade Level Not Specified</b>	<b>Grand Total of Condition</b>
ADD/ADHD	22569	11362	7164	268	41363
Addison's Disease	11	176	5		192
Allergies (Severe)	10249	4098	3487	119	17953
Anorexia/Bulimia	21	115	224		360
Asperger's Disease	487	218	152		857
Asthma	43479	18324	15470	320	77593
Autism	1828	635	636	3	3102
Cerebral Palsy	1189	476	443	5	2113
Congenital/Other Cardiac	2051	983	1012	14	4060
Cystic Fibrosis	146	78	89	3	316
Cytomegalovirus	10	4	5		19
Diabetes	1131	1224	1502	14	3871
Down's Syndrome	588	239	290	5	1122
Epilepsy/Seizure Disorder	3597	1522	1638	13	6770
Gastrointestinal Disorders	1377	767	842	10	2996
Genetic Diseases, Other	682	277	252	1	1212
Hemophilia/Bleeding Disorder	286	111	184	1	582
Hepatitis B	5	4	7		16
Hepatitis C	9	4	10		23
HIV/AIDS	26	20	14		60
Hypertension	181	267	424	7	879
Hyperthyroidism	65	50	81		196
Leukemia	137	56	47	1	241
Malignant Disease	160	93	81	1	335
Migraine Headache	2100	2348	2856	45	7349
Multiple Sclerosis	12	20	17		49
Muscular Dystrophy	90	47	54	1	192
Neuromuscular Disease	270	157	158	1	586
Orthopedic Disability (Permanent)	956	551	636	10	2153
Psychiatric Disorder	2997	1876	2434	13	7320
Renal Disease	623	284	327	2	1236
Rheumatoid Arthritis	205	160	146	1	512
Severe Hearing &/or Vision Impaired	1858	728	919	4	3509
Sickle Cell Disease	574	307	249	7	1137
Spina Bifida	208	105	86		399
Substance Abuse (known)	20	219	834		1073
Traumatic Brain Injury	166	97	106		369
Ulcers	73	71	205		349
Other	2323	879	1265	121	4588
<b>Total</b>	<b>102759</b>	<b>48952</b>	<b>44351</b>	<b>990</b>	<b>197052</b>

**APPENDIX B:**  
**REPORTED INJURIES**  
in  
**North Carolina Public Schools**  
**requiring EMS response or immediate care by physical/dentist AND loss of 1/2 day or more of school**  
**School Year 04-05**

<b>Type of Injury</b>	<b>Bus</b>	<b>Hallway</b>	<b>Classrm</b>	<b>Playground</b>	<b>PE Class</b>	<b>Shop</b>	<b>Restrm.</b>	<b>Lunchrm.</b>	<b>Other</b>	<b>Total # &amp; %</b>	
Abdominal/Internal	6	6	21	31	13	0	0	4	0	<b>81</b>	<b>&gt;1%</b>
Anaphylaxis	2	3	62	40	13	1	3	18	0	<b>142</b>	<b>&gt;1%</b>
Back Injury	25	9	25	86	75	2	5	3	0	<b>230</b>	<b>2%</b>
Dental Injury	11	31	83	212	118	0	11	14	2	<b>482</b>	<b>5%</b>
Drug Overdose	16	9	67	2	2	0	9	4	0	<b>109</b>	<b>1%</b>
Eye Injury	13	30	188	151	117	25	7	11	1	<b>543</b>	<b>5%</b>
Fracture	25	56	87	872	505	6	16	9	6	<b>1582</b>	<b>15%</b>
Head Injury	39	67	141	325	299	12	24	26	1	<b>934</b>	<b>9%</b>
Heat Related Emergency	4	4	14	66	79	1	1	2	1	<b>172</b>	<b>2%</b>
Laceration	84	80	311	381	189	106	15	25	3	<b>1194</b>	<b>12%</b>
Neck Injuries	13	3	10	22	24	0	1	0	0	<b>73</b>	<b>&gt;1%</b>
Psychiatric Emergency	21	36	265	21	16	1	7	6	2	<b>375</b>	<b>4%</b>
Respiratory Emergency	13	16	497	165	139	1	2	5	0	<b>838</b>	<b>8%</b>
Seizures	39	50	624	54	46	2	16	38	1	<b>870</b>	<b>8%</b>
Sprain or Strain	93	130	220	941	861	30	20	26	3	<b>2324</b>	<b>22%</b>
Other	18	29	196	54	52	14	6	11	5	<b>385</b>	<b>4%</b>
<b>Total #</b>	<b>422</b>	<b>559</b>	<b>2811</b>	<b>3423</b>	<b>2548</b>	<b>201</b>	<b>143</b>	<b>202</b>	<b>25</b>	<b>10334</b>	<b>100%</b>
<b>%</b>	<b>4%</b>	<b>5%</b>	<b>27%</b>	<b>33%</b>	<b>25%</b>	<b>2%</b>	<b>1%</b>	<b>2%</b>	<b>1%</b>	<b>100%</b>	

**Appendix C**  
**NORTH CAROLINA**  
**School Nurse to Student Ratio**  
By Local Education Agency (LEA)  
**School Year 2004-2005**

County public school districts are listed alphabetically: City school districts are listed alphabetically under the counties in which they are located. (This report does not include private, charter, federal, or state residential schools.) Ratios are based on FTEs working in local education agencies (LEAs) grades K – 12. Vacant positions are not included in calculating the school nurse to student ratio. Also note, Pre-K membership numbers are not included in the school nurse to student ratio nor contained within the reported average daily membership of the LEAs.)

County/LEA (SY 2004-05)	# of SN positions	RN (FTE only)	# STUDENTS	RATIO	COMMENTS
Alamance-Burlington	13	12.38	21,435	1:1731	
Alexander	4	4	5,650	1:1413	
Allegany +	2	2	1,489	1:745	
Anson	4	4	4,305	1:1076	
Ashe	3	3	3,176	1:1059	
Avery	2	2	2,258	1:1129	
Beaufort	3	3	7,127	-----	1 FTE serves 40 EC students only 2 FTE serve all others (1:3544)
Bertie +	5	5	3,307	1:661	
Bladen	5	4.24	5,636	1:1329	
Brunswick	10	10	10,788	1:1079	
Buncombe:	9	8.6	24,942	1:2900	
Buncombe County Schools					
Asheville City Schools	4	3.4	3,789	1:1114	
Burke	12	12	14,392	1:1199	
Cabarrus:	26	20.80	22,279	1:1071	
Cabarrus County Schools					
Kannapolis City Schools	7	5.60	4,593	1:820	
Caldwell	6	5.53	12,850	1:2324	
Camden +	3	3	1,662	1:554	
Carteret	6	6	8,103	1:1351	
Caswell	2	2	3,281	1:1641	
Catawba:	6	5.06	16,803	1:3321	
Catawba County Schools					
Hickory City Schools	5	2.96	4,372	1:1477	1 FTE position vacant during 04-05 SY
Newton Conover Schools	2	2	2,790	-----	1 FTE serves 131 EC students only 1 FTE serves all others (1: 2659)
Chatham	4	4	7,374	1:1844	
Cherokee +	6	4.86	3,606	1:742	
Edenton-Chowan +	4	3.8	2,432	1:640	
Clay	1	1	1,266	1:1266	
Cleveland	12	11.71	17,035	-----	1 FTE serves 150 EC students only 10.71 serve all others (1: 1577)

County/LEA (SY 2004-05)	# of SN positions	RN (FTE only)	# STUDENTS	RATIO	COMMENTS
Columbus: Columbus County Schools	5	5	6,830	1:1366	
Whiteville City Schools	3	3	2,662	1:887	
Craven +	23	19.75	14,377	1:728	
Cumberland	34	24.26	51,663	-----	8.24 FTE serve 51 EC students 16.02 FTE serve all others (1:3225) 4 PT positions vacant during 04-05 SY
Currituck +	7	6.07	3,854	1:635	
Dare +	9	9	4,830	1:537	
Davidson: Davidson County Schools	6	4.38	19,520	1:4457	
Lexington City Schools	2	2	2,998	1:1499	
Thomasville City Schools	3	3	2,522	1:841	
Davie +	9	8.37	6,234	1:745	
Duplin	8	8	8,759	1:1095	
Durham	20	13.65	30,307	-----	1 FTE serves 50 EC students only 12.65 serve all others (1: 2392) 2 FTE positions vacant during 04-05 SY
Edgecombe	5	5	7,495	1:1499	
Winston-Salem-Forsyth	32	12.94	47,800	-----	3 FTE serve 311 EC students only 9.94 FTE serve all others (1:4778) 3 PT positions vacant during 04-05 SY
Franklin	7	7	7,870	1:1124	
Gaston	20	19.53	31,289	-----	1 FTE serves 137 EC students only 18.53 FTE serve all others (1:1682)
Gates	3	2	1,959	1:980	1 FTE position vacant during 04-05 SY
Graham +	3	2.53	1,196	1:473	
Granville	4	4	8,580	1:2145	
Greene	4	3.85	3,139	1:815	
Guilford	38	36.48	66,367	-----	3 FTE serve 341 EC students only 33.48 FTE serve all others (1:1972) <i>Six FTE positions ended 5-31-05 due to program closure</i>
Halifax: Halifax County Schools	4	4	5,053	1:1263	
Roanoke Rapids City Schools	3	2	2,948	1:1474	1 FTE position vacant during 04-05 SY
Weldon City Schools +	2	2	1,038	1:519	
Harnett	9	9	16,783	1:1865	
Haywood	9	7	7,746	1:1107	1.5 FTE positions vacant during 04-05 SY
Henderson	4	4	12,292	1:3073	
Hertford +	5	5	3,500	1:700	
Hoke	5	3.53	6,708	1:1900	One part-time position vacant during 04-05 SY
Hyde +	1	1	640	1:640	



County/LEA (SY 2004-05)	# of SN positions	RN (FTE only)	# STUDENTS	RATIO	COMMENTS
Iredell:	12	11.20	19,291	1:1722	
Iredell-Statesville Schools	2	2	4,476	1:2238	
Mooreville City Schools					
Jackson	2	2	3,569	1:1785	
Johnston	11	10.64	26,075	1:2451	
Jones +	2	2	1,349	1:675	
Lee	8	7.11	9,056	1:1274	
Lenoir	5	5	9,788	1:1958	
Lincoln	6	6	11,441	1:1907	
Macon	4	3.64	4,120	1:1132	
Madison	2	2	2,597	1:1299	
Martin	2	2	4,400	1:2200	
McDowell	6	5.29	6,364	1:1203	
Charlotte-Mecklenburg	60	58.34	117,179	1:2009	
Mitchell	2	2	2,252	1:1126	
Montgomery	4	4	4,459	1:1115	
Moore	6	6	11,598	1:1933	
Nash-Rocky Mount	12	11.06	17,932	1:1621	
New Hanover +	35	33.97	23,020	1:678	
Northampton	3	2	3,158	1:1579	1 FTE position vacant during 04-05 SY
Onslow	16	13	21,947	1:1688	3 FTE position vacant during 04-05 SY
Orange:	11	10.20	6,619	1:649	
Orange County +					
Chapel Hill-Carrboro +	16	15.81	10,705	1:677	
Pamlico	2	2	1,626	1:813	
Elizabeth City-Pasquotank	5	5	5,884	1:1177	
Pender	6	6	7,065	1:1178	
Perquimans +	3	3	1,706	1:569	
Person	3	2.88	5,759	1:2000	
Pitt	15	15	21,374	1:1425	
Polk	1	1	2,396	1:2396	
Randolph:	7	7	18,073	1:2582	
Randolph County Schools					
Asheboro City Schools	3	3	4,477	1:1492	
Richmond	6	6	8,146	1:1358	
Robeson	21	21	23,843	1:1135	
Rockingham	7	7	14,392	1:2056	
Rowan-Salisbury	11	10.48	20,531	1:1959	
Rutherford	5	5	9,882	1:1976	
Sampson:	6	4	8,138	1:2035	2 FTE positions vacant during 04-05 SY
Sampson County Schools					
Clinton City Schools	3	3	2,789	1:930	

County/LEA (SY 2004-05)	# of SN positions	RN (FTE only)	# STUDENTS	RATIO	COMMENTS
Scotland	6	5.8	6,732	1:1161	
Stanly	4	4	9,601	1:2400	
Stokes	5	5	7,236	1:1447	
Surry:	7	7	8,622	1:1232	3 FTE positions grant positions ended 5-31-05
Surry County Schools	2	1.43	1,205	1:843	
Elkin City Schools	3	3	1,809	1:603	
Mt. Airy City Schools +					
Swain +	3	3	1,762	1:587	
Transylvania	2	2	3,752	-----	1 FTE serves 380EC students only 1 FTE serves all others (1:3372)
Tyrrell +	1	1	615	1:615	
Union	13	11.2	28,535	1:2548	1 FTE position vacant during 04-05 SY
Vance	5	5	7,972	1:1594	
Wake	57	50.39	113,547	1:2253	2 FTE serve Pre-K only – not counted in FTE for K-12
Warren	4	2	3,035	1:1518	2 FTE positions vacant during 04-05 SY
Washington	3	1	2,104	1:2104	2 FTE positions vacant during 04-05 SY
Watauga	1	1	4,537	1:4537	
Wayne	10	8.96	18,994		1 FTE serves 73 EC students only 7.96 FTE serve all others (1:2377)
Wilkes	9	8.53	9,898	1:1160	
Wilson	5	5	12,344	1:2469	
Yadkin	3	2.85	6,020	1:2112	
Yancey	2	2	2,514	1:1257	

+Meets nationally recommended ratio of 1:750 (endorsed by the American Academy of Pediatrics, National Association of School Nurses, Inc., American Nurses Association, Centers for Disease Control and Prevention, American School Health Association, and other professional associations.)

#### SCHOOL NURSE

#### LEA

#### FTE

#### # Students

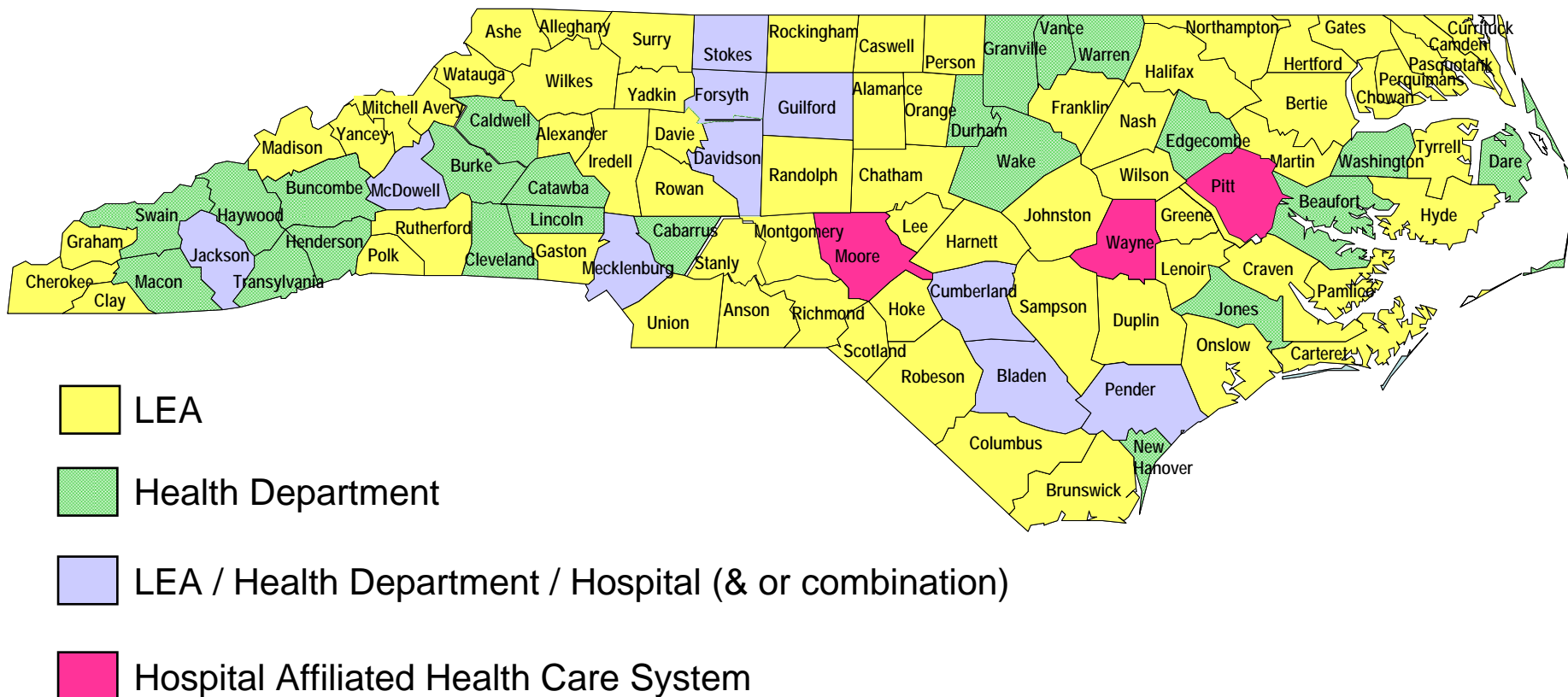
#### EC Student

=Registered Nurses (R.N.s) are recognized as school nurses  
 =Local Education Agency (school district) There are 115 LEAs in N.C.  
 =Full Time Equivalency  
 =Final Average Daily Membership as reported by  
 Public Schools of North Carolina • Department of Public Instruction  
 (Pre-K enrollments are not included in the student membership)  
 =Exceptional Children: those who receive special education under  
 Federal Law I.D.E.A.

DATA SOURCE: 2004-05 School Nurse Survey compiled by regional School Nurse Consultants  
 N.C. Division of Public Health • Department of Health and Human Services  
 and  
 Public Schools of North Carolina • Department of Public Instruction

# Administrative Responsibility for School Nursing Services

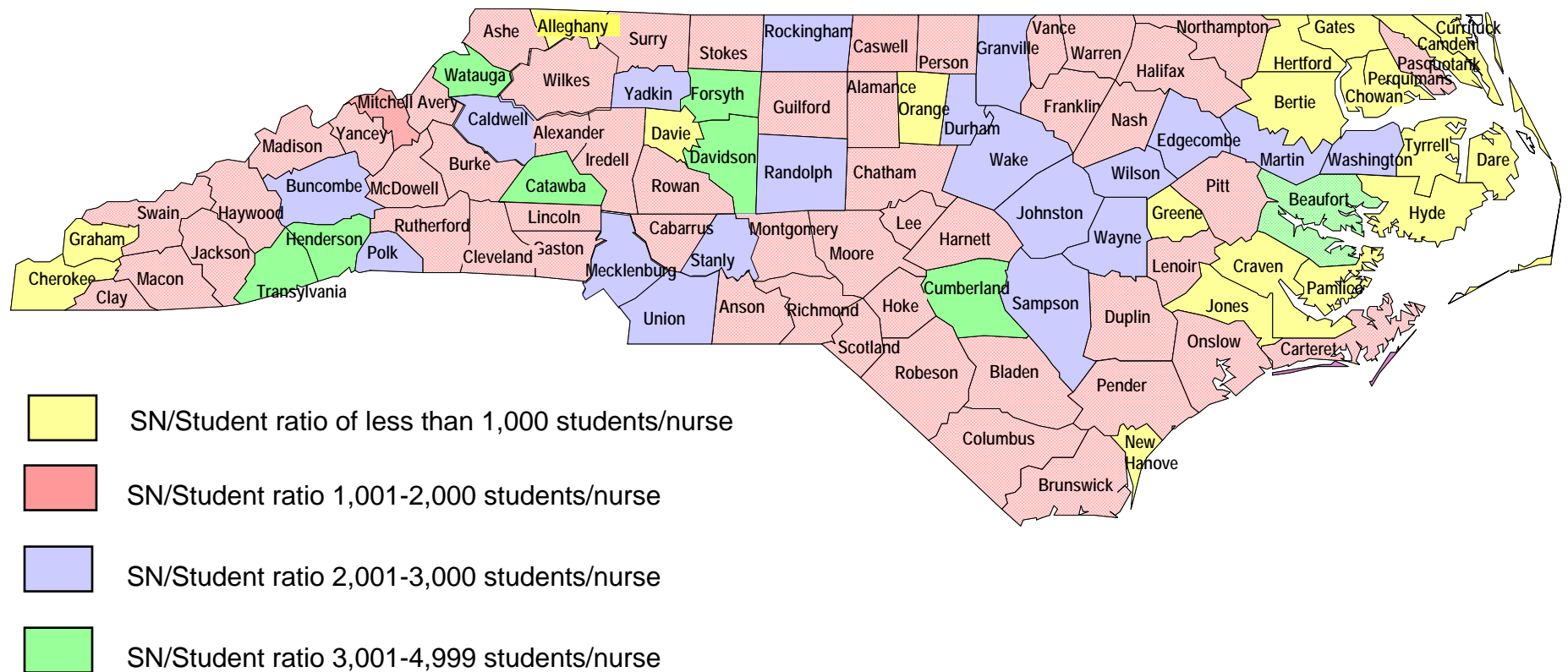
## School Year 2004 - 05



Note: Most counties do not have sufficient numbers of school nurses. More information on each county is available.

Updated: 8-05 Source: NC Annual Survey of School Health Services • NC DHHS

School Nurse/Student Ratio SY 2004 - 05  
(Ratio is based upon full-time equivalencies)



Note: The National Association of School Nurses recommends a SN/student ratio of 1:750

Source: NC Annual Survey of School Health Services  
NC DHHS August 2005